ORIGINATION FORM

THE INFORMATION BELOW IS TO BE PROVIDED BY THE ORIGINATOR

(The person who receives or originates the issue and needs to forward the issue for action.)

Specification: SECTION 785
Subject: Update of references and functional requirements.

Origination date: November 10, 2010
Originator: Gene Glotzbach
Office/Phone: Traffic Engineering and Operations, ITS Section
850-410-5600

Problem statement: There are a few of minor updates required to content in 785 in order to clarify statements and correct typos.

Proposed solution: This modification is being submitted to clarify, update, and/or improve content based upon project use. These include updating a table column description to align with values/verbiage used within other sections to describe minimum requirements for SPDs.

Information source: Traffic Engineering and Operations Office

Recommended Usage Note:

Estimated fiscal impact, if implemented: None

Implementation of these changes, if and when approved, will begin with the July 2011 letting.

For State Specifications Office Use Only

Begin date:
File Number:
Scheduled completion date:
Implementation date:
Implementation team member:
Usage Note:

Notes:

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M E M O R A N D U M

DATE: December 1, 2010

TO: Specification Review Distribution List

FROM: Rudy Powell, Jr., P.E., State Specifications Engineer

SUBJECT: Proposed Specification: 7850204 Intelligent Transportation Systems – Infrastructure

In accordance with Specification Development Procedures, we are sending you a copy of a proposed specification change.

The changes are proposed by Gene Glotzbach to clarify, update, and/or improve content based upon project use. These include updating a table column description to align with values/verbiage used within other sections to describe minimum requirements for SPDs.

Please share this proposal with others within your responsibility. Review comments are due within four weeks and should be sent to Mail Station 75 or to my attention via e-mail at SP965RP or rudy.powell@dot.state.fl.us. Comments received after **December 29 2010** may not be considered. Your input is encouraged.

RP/ft
Attachment

INTELLIGENT TRANSPORTATION SYSTEMS - INFRASTRUCTURE.
(REV ~~8~~*11*-~~03~~*10*-10)

SUBARTICLE 785-2.4.4 (of the Supplemental Specifications) is deleted and the following substituted:

785-2.4.4 SPD for Low-Voltage Power, Control, Data and Signal Systems: Install a specialized SPD on all conductive circuits including, but not limited to, data communication cables, coaxial video cables, and low-voltage power cables. Ensure that these devices comply with the functional requirements shown in Table 785-1 for all available modes (i.e. power L-N, N-G; data and signal center pin-to-shield, L-L, L-G, and shield-G where appropriate).

Table 785-1
SPD Minimum Requirements

Circuit Description	Clamping Voltage	~~Frequency/ Bandwidth/~~ Data Rate	Surge Capacity	Maximum Let-Through Voltage
12 VDC	15-20 V	N/A	5kA per mode (8x20 µs)	<150 Vpk
24 VAC	30-55 V	N/A	5kA per mode (8x20 µs)	<175 Vpk
48 VDC	60-85 V	N/A	5kA per mode (8x20 µs)	<200 Vpk
120 VAC at POU	150-200 V	N/A	~~5kA~~*20kA* per mode (8x20 µs)	<550 Vpk
Coaxial Composite Video	4-8 V	~~Up to 1.5 GHz~~*N/A*	10kA per mode (8x20 µs)	<~~100~~ *30* Vpk
RS422/RS485	8-15 V	Up to 10 Mbps	10kA per mode (8x20 µs)	<30 Vpk
T1	13-30 V	Up to 10 Mbps	10kA per mode (8x20 µs)	<30 Vpk
Ethernet Data	7-12 V	Up to 1~~00 M~~*G*bps	~~3~~*1*kA per mode (10x1000 µs)	<30 Vpk

Install a SPD that has an operating voltage matching the characteristics of the circuit. Ensure that these specialized SPDs are UL 497B or UL 497C listed, as applicable.